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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/632,432

07/31/2003

Jeffrey P. Rupley II

42P16353

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02/09/2007

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EXAMINER

MOLL, JESSE R

ART UNIT

PAPER NUMBER

2181

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/09/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/632,432	Applicant(s) RUPLEY ET AL.	
	Examiner Jesse R. Moll	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-22 is/are allowed.
- 6) ☒ Claim(s) 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>22 December 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 22 December 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Eickemeyer et al. (U.S. Patent No. 6393552 B1) herein referred to as Eickemeyer.

4. Regarding claim 1, Eickemeyer discloses an apparatus comprising: a storage structure to store at least one entry (fig. 3, ref. 313), the at least one entry to include a register type identifier value (fig. 3, ref. 335; col. 4, lines 53-57; the sector mask

Art Unit: 2181

indicates the type of register stored in that location [32 or 64 bit]); a first physical rename register of a first type (fig. 3, ref. RR1A; col. 3, lines 55-60), the first type having a first length (32-bit); and a second physical rename register of a second type (fig. 3, ref. RR1; col. 3, lines 55-61), the second type having a second length different than the first length (64-bit);

Note that if both status bits are set, the processor renames using the RR1 register (which is 64 bits long); otherwise, it uses the RR1A register (which is 32 bits long). Further note that the registers RR1 and RR1A do share common bits, however, the application does not explicitly claim that the registers cannot share bits.);

and rename logic to map an instance of the logical register to a selected one of the physical rename register (

Note that the logical register AR1 can be mapped to any of the rename registers RRN if the entire 64 bits need to be mapped or any of the registers RRNA if only 32 bits need to be mapped.)

dependant upon the number of bits (32 or 64) of the logical predicate register (any register can be used as a predicate) that are to be written by a current instruction (whichever instruction writes to that register;

Note that the rename logic will either map the register to a single sector of the register (first register) or to both sectors (second register) dependent on the size of the register being written.);

the rename logic further to place a register type identifier into the storage entry to indicate the type of the selected physical rename register (see fig. 3, ref. 335, col. 4, lines 53-57 regarding the sector mask; also see above regarding the register type identifier value).

Art Unit: 2181

5. Regarding claim 24, Eickemeyer discloses the apparatus of claim 23, wherein: the first and second physical rename registers belong to a plurality of t physical rename registers, wherein $t > 2$. (col. 3, lines 54-61).

Note that the plurality of registers includes all 32-bit registers in the first sector (RR1A-RRnA & RR1B-RRnB) and all of the full 64-bit registers.

6. Regarding claim 25, Eickemeyer discloses the apparatus of claim 23, wherein: the storage structure is to store a plurality of entries (registers), each of the plurality of entries to include a corresponding register type identifier value (Sector Mask, see above regarding claim 1)

Note each entry in the rename file has (when in use) a corresponding entry in the rename table. The entry in the rename table contains the register type identifier value.

7. Regarding claim 26, Eickemeyer discloses the apparatus of claim 23, wherein: the first physical rename register is one of a plurality (z) of physical rename registers of the first length (RR1A, RR1B, RR2A, RR2B, RR3A...)

8. Regarding claim 27, Eickemeyer discloses the apparatus of claim 23, wherein: the second physical rename register is one of a plurality (m) of physical rename registers of the second length (RR1, RR2, RR3...)

9. Regarding claim 28, Eickemeyer discloses the apparatus of claim 26, wherein: the second physical rename register is one of a plurality (m) of physical rename registers of the second length (RR1, RR2, RR3...)

Art Unit: 2181

10. Regarding claim 29, Eickemeyer discloses the apparatus of claim 28, wherein: z is not equal to m (there are twice as many 32-bit registers as 64-bit registers):

11. Regarding claim 30, Eickemeyer discloses the apparatus of claim 24, wherein the selected physical rename register is selected from the plurality of n registers, which includes multiple registers of both the first type and the second type (col. 3, lines 54-61).

Note that the logical register AR1 can be mapped to any of the rename registers RRN if the entire 64 bits need to be mapped or any of the registers RRNA if only 32 bits need to be mapped.

Allowable Subject Matter

12. Claims 9-22 are allowed. Please refer to the Office Action mailed 17 August 2006 which sets forth the reasons for allowance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse R. Moll whose telephone number is (571)272-2703. The examiner can normally be reached on M-F 10:00 am - 6:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A. Sparks can be reached on (571)272-4201. The fax phone

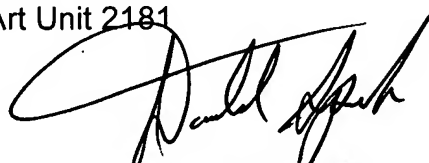
Art Unit: 2181

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JM 2/5/07

Jesse R Moll
Examiner
Art Unit 2181



DONALD SPARKS
SUPERVISORY PATENT EXAMINER